AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-13 (cancelled)

Claim 14 (new): A sound detecting mechanism comprising a pair of electrodes forming a capacitor on a substrate in which one of the electrodes is a back electrode forming perforations therein corresponding to acoustic holes and the other of the electrodes is a diaphragm,

wherein the diaphragm is made of at least one of a metal film and a laminated film, the metal film being formed by at least one of sputtering in a low temperature process, vacuum vapor deposition and plating technique, the laminated film being formed of an organic film, a conductive film, or any combination thereof,

the back electrode is formed on the substrate, and

a spacer is formed from part of a sacrificial layer comprising an organic film for determining a distance between the diaphragm and the back electrode.

Claim 15 (new): The sound detecting mechanism as claimed in claim 14, wherein the diaphragm is made of at least one of an Ni film or Cu film formed by plating technique, and stress of the diaphragm is controlled by setting processing conditions in executing the plating technique.

Claim 16 (new): The sound detecting mechanism as claimed in claim 14, wherein, the metal film is made of at least one of Si, Al, Ti, Ni, Mo, W, Au and Cu, by using the at least one of the sputtering process and the vacuum vapor deposition, or formed by laminating a plurality of materials selected from the group consisting of Si, Al, Ti, Ni, Mo, W, Au and Cu, thereby constituting the diaphragm.

Claim 17 (new): The sound detecting mechanism as claimed in claim 14, wherein the diaphragm is formed of a lamination comprising a base layer made of an organic film using at least one of a resist, polyimide resin and polyparaxylene resin, and a conductive layer made of a conductive material.

Claim 18 (new): The sound detecting mechanism as claimed in claim 14, wherein the organic film of the sacrificial layer uses at least one of a resist and polyimide resin for forming a void area between the back electrode and the diaphragm by etching the sacrificial layer.

Claim 19 (new): The sound detecting mechanism as claimed in claim 14, wherein the substrate is made of a monocrystal silicon substrate, and a silicon substrate of 100 orientation is used as the monocrystal silicon substrate.

Claim 20 (new): The sound detecting mechanism as claimed in claim 14, wherein a material having resistance to anisotropic etching is used as a base for the sacrificial layer.

Claim 21 (new): The sound detecting mechanism as claimed in claim 14, wherein the sacrificial layer has a thickness of 1 to 5μm.

Claim 22 (new): The sound detecting mechanism as claimed in claim 14, wherein the diaphragm is formed of a plated layer formed by plating technique, and an adhesion layer is disposed between the plated layer and an insulating layer formed on the substrate for enhancing adhesion.

Claim 23 (new): The sound detecting mechanism as claimed in claim 14, wherein an opening corresponding to a sound entrance is formed by anisotropic etching after the back electrode is perforated to form acoustic holes.

Claim 24 (new): The sound detecting mechanism as claimed in claim 14, wherein the thickness of the back electrode is controlled by an inspection pattern juxtaposed to a sound detecting mechanism pattern on the substrate.

Claim 25 (new): The sound detecting mechanism as claimed in claim 14, further comprising a signal fetching circuit formed on the substrate and having a plurality of semiconductor elements, a sound detecting section formed of the diaphragm and the back electrode, and an electric connecting member for transmitting signals from the sound detecting section to the signal fetching circuit.

Claim 26 (new): The sound detecting mechanism as claimed in claim 25, wherein the electric connecting member is formed of at least one of metal wires and a metal film formed on the substrate in a semiconductor manufacturing process.